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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT PAPER NUMBER

3745

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/002,141	Applicant(s) BEECK ET AL.	
	Examiner Christopher Verdier	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-5 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicants' Amendment dated October 13, 2004 has been carefully considered but is deemed non-persuasive. Claims 1 and 3-5 are pending.

With regard to Applicants' arguments that amended claim 1 defines over Ohtomo 4,992,026 (figures 1-2), these arguments have been carefully considered and are agreed with. Applicants are thanked for their detailed analysis of Ohtomo. However, amended claim 1, which has been amended to recite a coolant passage comprising at least one curved flow section, with a second passage branching off the coolant passage and arranged as a tangent to the curved flow section, now reads on figure 4 of Ohtomo '026, as set forth later below

Applicants' arguments that amended claim 1 defines over Glezer 5,603,606, Japanese Patent 64-66,401, and Lee 5,797,726, and the brochure "Air-Cooling of Gas Turbine Blades" have been carefully considered and are agreed with. Applicants are thanked for their detailed analysis of these references. However, Glynn 6,206,638, Liotta 5,902,093, Sidenstick 3,628,885, and Kercher 3,533,711 disclose the features of amended claim 1, including a coolant passage comprising at least one curved flow section, with a second passage branching off the coolant passage and arranged as a tangent to the curved flow section, as set forth later below.

Examiner's Suggestion to Claim Language

The following is a suggestion to improve the clarity and precision of the claims:

In claim 1, line 10, "and the second passage" (first occurrence) may be deleted, because the claim is written so that the inspection aperture and the second passage are the same element.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohtomo 4,992,026 (figure 4). Note the component 10 of a fluid flow machine, comprising a coolant passage 50, 52 comprising at least one curved flow section near 66, with a second passage 62 (the topmost passage adjacent pins 64) comprising an inspection aperture arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage, with the second passage branching off the coolant passage at the curved flow section and arranged as a tangent to the curved flow section. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially parallel to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 8-10 of the inspection aperture being arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage is not considered to define over Ohtomo, because these limitations are a function of the size the borescope, and the size of the borescope

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would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Glynn 6,206,638 (figure 3). Note the component 12 of a fluid flow machine, comprising a coolant passage 40 comprising at least one curved flow section near 37A, with a second passage 59 comprising an inspection aperture arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage, with the second passage branching off the coolant passage at the curved flow section and arranged as a tangent to the curved flow section. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially perpendicular to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 8-10 of the inspection aperture being arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage is not considered to define over Glynn, because these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Liotta 5,902,093 (figure 2). Note the component 10 of a fluid flow machine, comprising a coolant

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passage 40e, 40g comprising at least one curved flow section near 40f, with a second passage 44a comprising an inspection aperture arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage, with the second passage branching off the coolant passage at the curved flow section and arranged as a tangent to the curved flow section. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially perpendicular to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 8-10 of the inspection aperture being arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage is not considered to define over Liotta, because these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Sidenstick 3,533,711 (figure 4). Note the component 33 of a fluid flow machine, comprising a coolant passage 42, 43 comprising at least one curved flow section near 54, with a second passage 53 comprising an inspection aperture arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage, with the second passage branching off the coolant passage at the curved flow section and arranged as a tangent to the curved flow section. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged

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at the blade tip and has its longitudinal axis essentially perpendicular to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 8-10 of the inspection aperture being arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage is not considered to define over Sidenstick, because these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kercher 3,628,885 (figure 2). Note the component 12 of a fluid flow machine, comprising a coolant passage 58 comprising at least one unnumbered curved flow section, with a second passage 76 comprising an inspection aperture arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage, with the second passage branching off the coolant passage at the curved flow section and arranged as a tangent to the curved flow section. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially perpendicular to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 8-10 of the inspection aperture being arranged and dimensioned to enable the introduction of a borescope through the inspection aperture and the second passage is not considered to define over Kercher, because these limitations are a function of the size the borescope, and the size of the borescope would

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determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.
December 13, 2004


Christopher Verdier
Primary Examiner
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